

### REMARKS

In a first Office Action dated August 26, 2004, the Examiner rejected claims 1 and 2 under 35 U.S.C. §102(e) as being anticipated by Dam (U.S. patent no. 6,771,987). The Examiner then rejected claim 3 under 35 U.S.C. §103(a) as being unpatentable over Dam in view of Gans (U.S. patent no. 5,987,037), claims 5 and 6 over Dam in view of Sollenberger (U.S. publication no. 2002/0135516), claims 7-9 over Dam in view of Lin (U.S. patent no. 6,360,107), and claims 10-12 over Dam in view of Evans (U.S. patent no. 5,920,813).

The Examiner rejected claims 13 and 15 under 35 U.S.C. §102(e) as being anticipated by Keskitalo (U.S. patent no. 5,893,033). The Examiner then rejected claims 14 and 16 under 35 U.S.C. §103(a) as being unpatentable over Keskitalo in view of Dam, claim 17 over Keskitalo in view of Lin, claim 18 over Keskitalo in view of Gans, claims 20 and 21 over Keskitalo in view of Sollenberger, and claims 22-24 over Keskitalo in view of Evans. Claims 4 and 19 were objected to as being dependent upon a rejected base claim but as being allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. The rejections are traversed and reconsideration is hereby respectfully requested.

The Examiner rejected claims 1 and 2 under 35 U.S.C. §102(e) as being anticipated by Dam. Specifically, with respect to claim 1, the Examiner contended that Dam teaches a method for conveying user information to each mobile station (MS) of multiple mobile stations (MSs) in a switched beam antenna system (FIGs. 1 and 4) that includes an infrastructure and multiple beams for the conveyance of user information from the infrastructure to the multiple MSs (FIGs. 1 and 4; col. 1, lines 54-67; col. 3, lines 32-43), the method including a step of scheduling a different MS of the multiple MSs for substantially simultaneous use of each beam of the multiple beams (col. 3, lines 1-32 and 49-53; col. 4, lines 60-67, claims 1 and 8).

The applicant respectfully submits that the Examiner has misinterpreted Dam. Dam teaches an adaptive beam antenna system (Abstract; col. 2, lines 65-67; col. 3, lines 7-9; and elsewhere throughout the patent), not a switched beam antenna system. In an

adaptive beam antenna system, an antenna beam allocated to each MS follows the MS as the MS moves around a coverage area. This is in contrast to a switched beam antenna system, wherein each beam is fixed in position and an MS moves from one fixed beam to another as the MS moves around a coverage area. Thus, beam scheduling for adaptive antenna systems, where a same beam stays associated with an MS as the MS moves through a coverage area, is not comparable to beam scheduling with respect to a fixed beam antenna system, where an MS associates with different beams as the MS moves through a coverage area. Therefore, Dam does not teach the feature of claim 1 of scheduling a different MS of multiple MSs for substantially simultaneous use of each beam of multiple beams in a switched beam antenna system. Accordingly, the applicant respectfully requests that claim 1 may now be passed to allowance.

The Examiner also rejected claim 2 based on Dam. Claim 2 provides for assigning a first portion of a shared communication channel to a first MS, assigning a second portion of the shared communication channel to a second MS, transmitting the first portion of the shared communication channel in a first beam of the multiple switched beams, and transmitting the second portion of the shared communication channel in a second beam of the multiple switched beams. Nowhere is this taught by Dam as Dam teaches nothing concerning shared channels. Instead, Dam merely teaches transmitting a first Packet Data Channel (PDCH) in a first adaptive beam and transmitting a second Packet Data Channel (PDCH) in a second adaptive beam (col. 3, lines 53-67). Therefore, Dam does not teach the features of claim 2 of transmitting a first portion of a shared communication channel in a first beam and transmitting the second portion of the shared communication channel in a second beam of multiple switched beams. For the reasons stated above, and since claims 2-12 depend upon allowable claim 1, the applicant respectfully requests that claims 2-12 may now be passed to allowance.

The Examiner rejected claims 13 and 15 under 35 U.S.C. §102(e) as being anticipated by Keskitalo. Specifically, with respect to claim 13, the Examiner contended that Keskitalo teaches a base station subsystem operating in a switched beam antenna system (col. 5, lines 22-30; FIG. 4) that includes an antenna array having multiple array elements, multiple weighters that are each coupled to an element of the multiple

elements, and a processor coupled to each weighter of the multiple weighters, wherein the processor conveys a first set of weighting coefficients to the weighters for a conveyance of information to a first MS of multiple MSs and further conveys a second set of weighting coefficients to the weighters for a conveyance of information to a second MS of the multiple MSs, wherein the first set of weighting coefficients are utilized by the weighters to transmit a first beam of the plurality of beams to the first MS and wherein the second set of weighting coefficients are utilized by the weighters to transmit a second beam of the plurality of beams to the second MS (FIGs. 4, 6, and 7; col. 7, line 61-col. 8, line 42; col. 9, line 17-col. 10, line 7).

The applicant respectfully submits that the Examiner has misinterpreted Keskitalo. The sections and figures of Keskitalo referenced by the Examiner concern an adaptive beam antenna system (col. 7, lines 64-67; col. 8, lines 12-28 and 58-63; col. 9, lines 17-27; col. 10, lines 55-59; and col. 11, lines 4-8), not a fixed beam system. While Keskitalo later references a fixed beam system (FIGs. 11 and 13), Keskitalo merely teaches forming a beam for transmission to a single MS (see FIGs. 4, 6, and 7a-7c) and not the features of claim 13 of utilizing a first set of weighting coefficients to transmit a first beam of multiple fixed beams to a first MS and utilizing a second set of weighting coefficients to transmit a second beam of multiple fixed beams to a second MS. Therefore, Keskitalo does not teach the features of claim 13 and the applicant respectfully requests that claim 13 may now be passed to allowance.

Since claims 14-24 depend upon allowable claim 13, the applicant respectfully requests that claims 14-24 may now be passed to allowance.

As the applicant has overcome all substantive rejections and objections given by the Examiner and has complied with all requests properly presented by the Examiner, the applicant contends that this Response, with the above discussion, overcomes the Examiner's objections to and rejections of the pending claims. Therefore, the applicant respectfully solicits allowance of the application. If the Examiner is of the opinion that any issues regarding the status of the claims remain after this response, the Examiner is invited to contact the undersigned representative to expedite resolution of the matter.

Respectfully submitted,

Colin Frank

By: 

Steven A. May  
Attorney for Applicant  
Registration No. 44,912  
Phone No.: 847/576-3635  
Fax No.: 847/576-3750